# 510(K) Summary

JUN 1 4 2013

### CarboFix Orthopedics Ltd.

# Piccolo Composite® Nailing System - Ankle Arthrodesis

# **Applicant Name**

CarboFix Orthopedics Ltd.

11 Ha'hoshlim St., Herzeliya 46724, Israel

#### **Contact Person**

Yael Rubin

CarboFix Orthopedics Ltd.

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### **Date Prepared**

May 2013

# Trade/Proprietary Name

Piccolo Composite Nailing System

### Common Name

Intramedullary Nailing System

### **Classification Name**

Rod, Fixation, Intramedullary and Accessories (21 CFR §888.3020; Product Code HSB)

#### **Predicate Devices**

Piccolo Composite Nailing System – Tibia and Femur (CarboFix Orthopedics Ltd.;
 K102369, K111056)

- Phoenix Ankle Arthrodesis Nailing System (Biomet Trauma; K081243, K091976)
- Valor<sup>®</sup> Ankle Fusion Nail System (Wright Medical Technology, Inc.; K090857)

#### Intended Use/Indications for Use

# Piccolo Composite Ankle Arthrodesis Nails

The Piccolo Composite Ankle Arthrodesis Nails are indicated for tibiotalocalcaneal arthrodesis (fusion).

### Specific indications include:

- 1. Avascular necrosis of the talus
- 2. Failed total ankle arthroplasty
- 3. Trauma (malunited tibial pilon fracture)
- 4. Severe deformity or instability as a result of talipes equinovarus, cerebral vascular accident, paralysis or other neuromuscular disease
- 5. Revision ankle arthrodesis
- 6. Neuroarthropathy
- 7. Rheumatoid arthritis
- 8. Osteoarthritis
- 9. Pseudoarthrosis
- 10. Post-traumatic arthrosis
- 11. Previously infected arthrosis
- 12. Charcot foot
- 13. Severe endstage degenerative arthritis
- 14. Severe defects after tumor resection
- 15. Pantalar arthrodesis

#### **System Description**

The Piccolo Composite Ankle Arthrodesis Nailing System includes nails, interlocking screws and a set of instruments.

The Piccolo Composite Ankle Arthrodesis Nail is a cannulated, cylindrical rod, made of carbon fiber reinforced polymer. Nail diameter ranges from 10mm to 12mm, with lengths

in the range of 160mm to 240mm. The nails provide for holes at the proximal and distal sections, designed for the insertion of self-tapping, titanium-alloy-made, interlocking screws.

# Substantial Equivalence

The Piccolo Composite Nailing System intended use, design, materials, technological characteristics, and principles of operation are substantially equivalent to those of the predicate devices, as applicable.

Evaluation of expected performance characteristics, such as bending and torsion parameters for the Piccolo Composite ankle arthrodesis nails was based on comparison to predicate devices, per ASTM F 1264 - Standard Specification and Test Methods for Intramedullary Fixation Devices. Evaluation in support of MR Conditional labeling parameters was also provided. All the above demonstrate that the device is safe and effective for its intended use.



Food and Drug Administration 10903 New Hampshire Avenue Document Control Center – WO66-G609 Silver Spring, MD 20993-0002

June 14, 2013

CarboFix Orthopedics Limited % Ms. Yael Rubin Director of Regulatory Affairs 11 Ha hoshlim Street Herzeliya 46724 Israel

Re: K123810

Trade/Device Name: Piccolo Composite Nailing System

Regulation Nur iber: 21 CFR 888.3020

Regulation Name: Intramedullary fixation rod

Regulatory Class: Class II Product Code: HSB Dated: May 12, 2013 Received: May 14, 2013

Dear Ms. Rubin:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and-Gosmetic-Act-(Act)-that-do-not-require-approval-of-a-premarket-approval-application-(PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Pleas: note: CDRH does not evaluate information related to contract liability warranties. We remind you; however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 801); medical device reporting (reporting of medical

device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 301), please contact the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <a href="http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm">http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm</a>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm.

Sincerely yours,

Erin I. Keith

For

Mark N. Melkerson Director

Division.of.Orthopedic Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

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510(K) Number (if known):
Device Name: Piccolo Composite <sup>®</sup> Nailing System
Indication for Use:
Piccolo Composite Ankle Arthrodesis Nails
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arthrodesis (fusion).
Specific indications include:
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11. Previously infected arthrosis
12. Charcot foot
13. Severe endstage degenerative arthritis
14. Severe defects after tumor resection
—15Pantalar-arthrodesis—
Prescription Use AND/OR Over-The-Counter Use
(Part 21 CFR 801 Subpart D) (Part 21 CFR 801 Subpart C)
(Fait 21 CFR 801 Subpart C)
(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)
Division of Orthopedic Devices